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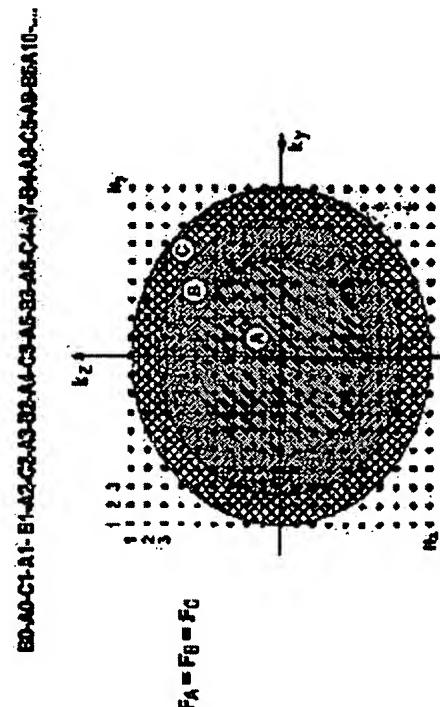
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(54) METHOD FOR OBTAINING THREE-DIMENSIONAL RECORD TIME AND POSITION RESOLVED BY MAGNETIC RESONANCE AND APPARATUS FOR PRACTICING THIS METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To improve position and/or time resolution of measurement by deciding the time order so as to catch the central segments more frequently than the outside segments in k-shape for different combination of phase coding.

SOLUTION: The areas of segments A, B and C are all equal. The measurement order corresponding to individual segment is that the data for the center are measured with a frequency double the data for outside segment B and C. The symmetry of k-shape division better fits the object to be taken in the ring-form segmentation. For instance, when the object is a blood vessel with a longitudinal direction along the read-out gradient, the cross-section of the blood vessel positions within both phase coding gradient planes. The cross-section of the blood vessel is described by a circular plane for the first approximation, and segmentation of the ring-form k-shape enables diffused state of diffused medium and practice of 3D measurement. Thus, an



optimum relation of time and position resolution is obtained.

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